



Missouri Department of Natural Resources
Davis Creek - WBID 0912
Water Chemistry Data, 2000-2002

Org	Site	Site Name	Yr	Mo	Dy	Time	H	Flow	C	DO	pH	SC	NH3N
MoDNR	912/3.8	Davis Cr. 5.2 mi.bl. Odessa SE Lgn.	2000	3	3	730	9	0.3	6.4	9.7	8	539	0.02499
MoDNR	912/3.8	Davis Cr. 5.2 mi.bl. Odessa SE Lgn.	2000	3	3	1230	9		7	14	8.7	529	0.02499
MoDNR	912/3.8	Davis Cr. 5.2 mi.bl. Odessa SE Lgn.	2002	8	14	727		1.05	19	6.2	7.9	484	0.02499
MoDNR	912/3.8	Davis Cr. 5.2 mi.bl. Odessa SE Lgn.	2002	8	14	1337			30	8.4	8.9	474	0.02499
MoDNR	912/3.8	Davis Cr. 5.2 mi.bl. Odessa SE Lgn.	2002	9	11	746			20	5.4	8.9	349	0.02499
MoDNR	912/3.8	Davis Cr. 5.2 mi.bl. Odessa SE Lgn.	2002	9	11	1231		0.02	25	5.9	8.4	336	0.02499
MoDNR	912/5.7	Davis Cr. 3.3 mi.bl. Odessa SE Lgn.	2002	8	14	710		2.98	21	4.35	7.6	556	0.22
MoDNR	912/5.7	Davis Cr. 3.3 mi.bl. Odessa SE Lgn.	2002	8	14	1358			23	5	7.7	561	0.11
MoDNR	912/5.7	Davis Cr. 3.3 mi.bl. Odessa SE Lgn.	2002	9	11	728		0.01	21	1.3	7.9	706	0.2
MoDNR	912/5.7	Davis Cr. 3.3 mi.bl. Odessa SE Lgn.	2002	9	11	1247			22	2.9	7.7	691	0.18
MoDNR	912/7.3	Davis Cr. 1.7 mi.bl. Odessa SE Lgn	2000	3	3	750	9		7	9.4	7.9	656	0.02499
MoDNR	912/7.3	Davis Cr. 1.7 mi.bl. Odessa SE Lgn	2000	3	3	1215	9		7	11.4	8.1	651	0.02499
MoDNR	912/7.3	Davis Cr. 1.7 mi.bl. Odessa SE Lgn	2002	8	14	652			21	4.9	7.7	647	0.35
MoDNR	912/7.3	Davis Cr. 1.7 mi.bl. Odessa SE Lgn	2002	8	14	1416		3.2	25.5	6.1	8	654	0.27
MoDNR	912/7.3	Davis Cr. 1.7 mi.bl. Odessa SE Lgn	2002	9	11	716			22	1.6	8	727	0.36
MoDNR	912/7.3	Davis Cr. 1.7 mi.bl. Odessa SE Lgn	2002	9	11	1312		0.16	24	4.2	7.8	718	0.28
MoDNR	912/8.7	Davis Cr. 0.3 mi.bl. Odessa SE Lgn	2000	3	3	810	9	0.45	6	9.8	7.7	728	0.02499
MoDNR	912/8.7	Davis Cr. 0.3 mi.bl. Odessa SE Lgn	2000	3	3	1205	9		6.3	12.6	8	732	0.02499
MoDNR	912/8.7	Davis Cr. 0.3 mi.bl. Odessa SE Lgn	2002	8	14	632			20	4.6	7.8	671	2.75
MoDNR	912/8.7	Davis Cr. 0.3 mi.bl. Odessa SE Lgn	2002	8	14	1445		0.67	25	4.4	7.8	619	2.42
MoDNR	912/8.7	Davis Cr. 0.3 mi.bl. Odessa SE Lgn	2002	9	11	700		0.2	21	0.499	8.2	729	1.49
MoDNR	912/8.7	Davis Cr. 0.3 mi.bl. Odessa SE Lgn	2002	9	11	1339			23	4	8.1	702	1.23
MoDNR	912/9.1	Davis Cr. 50 yds.ab. Odessa SE Lgn.	2000	3	3	847	9	0.4	6	10.4	7.8	726	0.02499
MoDNR	912/9.1	Davis Cr. 50 yds.ab. Odessa SE Lgn.	2000	3	3	1145	9	0.4	6.4	11.6	8	722	0.02499
MoDNR	912/9.1	Davis Cr. 50 yds.ab. Odessa SE Lgn.	2002	8	14	603			21	5.4	7.7	425	0.02499
MoDNR	912/9.1	Davis Cr. 50 yds.ab. Odessa SE Lgn.	2002	8	14	1508		1.54	25	5.4	7.8	436	0.02499
MoDNR	912/9.1	Davis Cr. 50 yds.ab. Odessa SE Lgn.	2002	9	11	627		0.17	20	3.1	7.9	393	0.02499
MoDNR	912/9.1	Davis Cr. 50 yds.ab. Odessa SE Lgn.	2002	9	11	1359			24	5.8	8	391	0.02499

The chronic water quality standard for the protection of aquatic life for ammonia is temperature and pH dependent. A water is judged to be impaired if the chronic or acute numeric criteria are exceeded on more than one occasion, with an exposure period of 30 days, during the last three years for which data is available. The chronic criterion for ammonia was exceeded two times during the last three years for which data is available. However, these values are not believed to be representative of current conditions because new permit limits were issued for the facility in 2003 and the new treatment facility was nearing completion in 2007.

The water quality standard for the protection of aquatic life for dissolved oxygen is 5mg/L. For dissolved oxygen, the Listing Methodology Document allows a water to be judged as impaired if measurements on 10 percent of the days monitored fail to meet the water quality standard. Seven of 14 days exceeded the standard, or 50 percent. The binomial probability is 0. However, these values are not believed to be representative of current conditions because new permit limits were issued for the facility in 2003.

The data also shows low dissolved oxygen upstream of the wastewater treatment plant. However, the small size of the data set is inadequate for making a scientifically defensible decision regarding impairment. It is recommended that this stream receive **additional monitoring**.

A total maximum daily load for high ammonia, nutrients and biochemical oxygen demand, which contributes to low dissolved oxygen, was updated and approved by the U.S. Environmental Protection Agency in 2003. Because of this, the Environmental Protection Agency has approved the removal of Davis Creek from the 303(d) List.

Missouri Department of Natural Resources, Water Protection Program, (573) 751-1300, www.dnr.mo.gov
3/6/08 LAT